ABSTRACT OF THE DISCLOSURE

An energy saving circuit is connected to a receiver of a first physical layer of a first network device. The energy saving device has first and second energy saving modes. In the first energy saving mode, a sense circuit generates a receive signal when connection activity is detected by the receiver. The energy saving circuit powers down the physical layer when the receiver does not detect the connection activity. An autonegotiation circuit powers up the first physical layer and negotiates a connection with a second physical layer of a second network device when the sense circuit generates the receive signal. In a second energy saving mode, a second timer periodically powers a transmitter and generates a link pulse. After the transmitter generates the link pulse, the transmitter is turned off.